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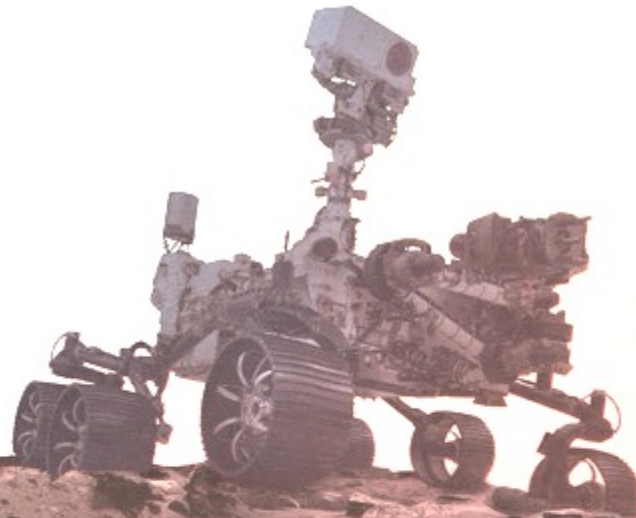
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Today On Mars



**MARS
2020**
PERSEVERANCE



**Pictures and Information on the
NASA Perseverance Rover,
its onboard instruments
and the Ingenuity Helicopter**



Managed by Triad National Security, LLC, for the U.S. Department of Energy's NNSA.



Mars 2020/Perseverance

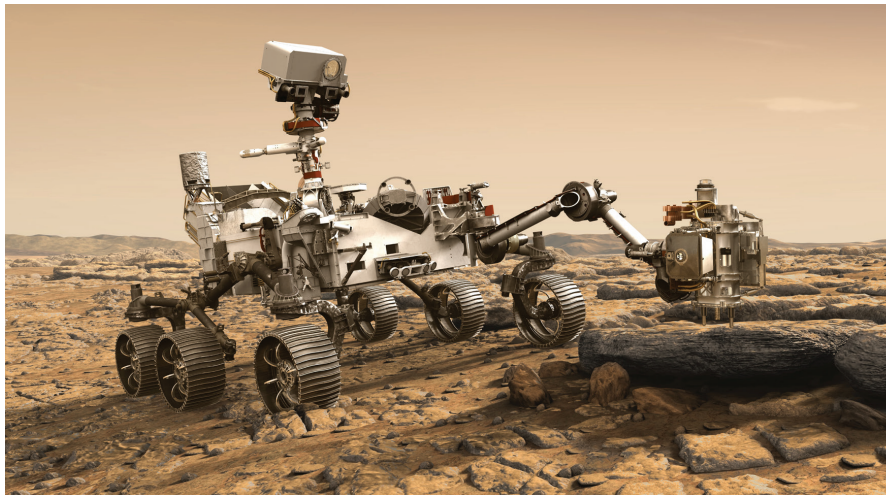
Over the past two decades, missions flown by NASA's Mars Exploration Program have shown us that Mars was once very different from the cold, dry planet it is today. Evidence discovered by landed and orbital missions point to wet conditions billions of years ago. These environments lasted long enough to potentially support the development of microbial life.

The Mars 2020/Perseverance rover is designed to better understand the geology of Mars and seek signs of ancient life. The mission will collect and store a set of rock and soil samples that could be returned to Earth in the future. It will also test new

technology to benefit future robotic and human exploration of Mars.

Key Objectives

- Explore a geologically diverse landing site
- Assess ancient habitability
- Seek signs of ancient life, particularly in special rocks known to preserve signs of life over time
- Gather rock and soil samples that could be returned to Earth by a future NASA mission
- Demonstrate technology for future robotic and human exploration



NASAfacts

Mission Timeline

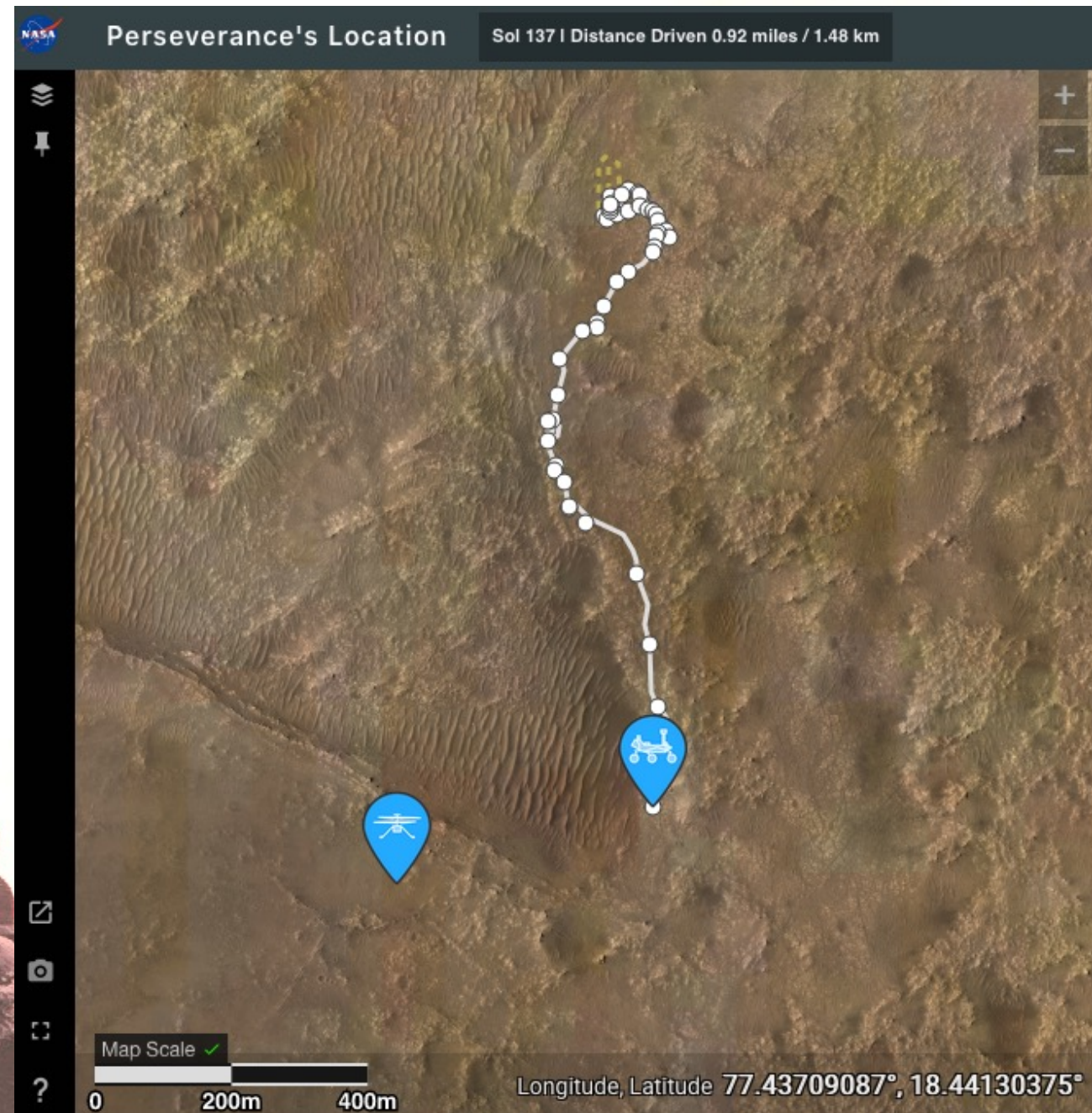
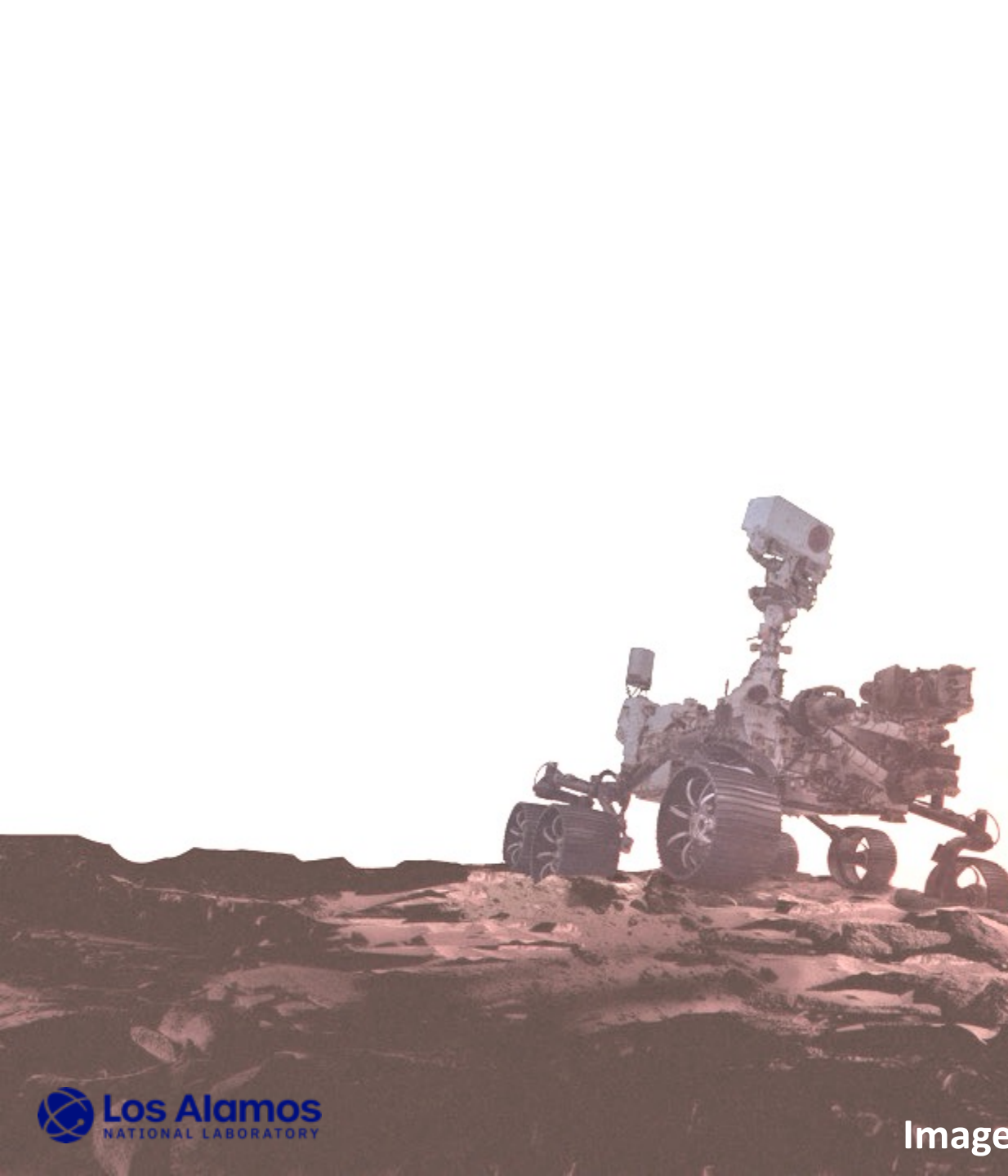
- Launch July 30, 2020 from Cape Canaveral Air Force Station, Florida
- Land on Mars on February 18, 2021 at the site of an ancient river delta in a lake that once filled Jezero Crater
- Spend at least one Mars year (two Earth years) exploring the landing site region

**Launch
from Cap
Canaveral
30 July
2020**

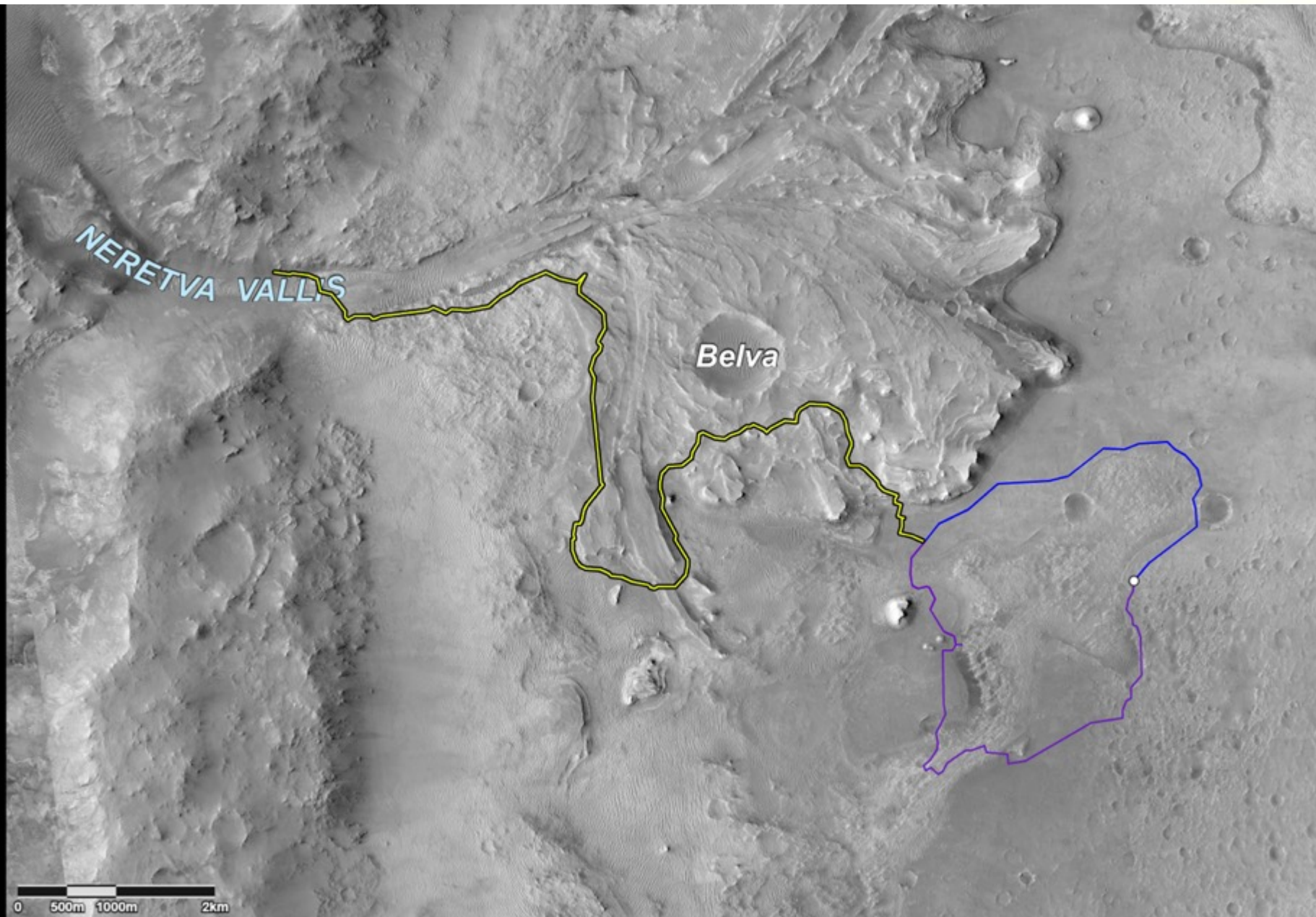


**Landed in Jezero Crater on Mars
18 February 2021**









Mastcam-Z
Zoomable Panoramic Cameras

SuperCam
Laser Micro-Imager

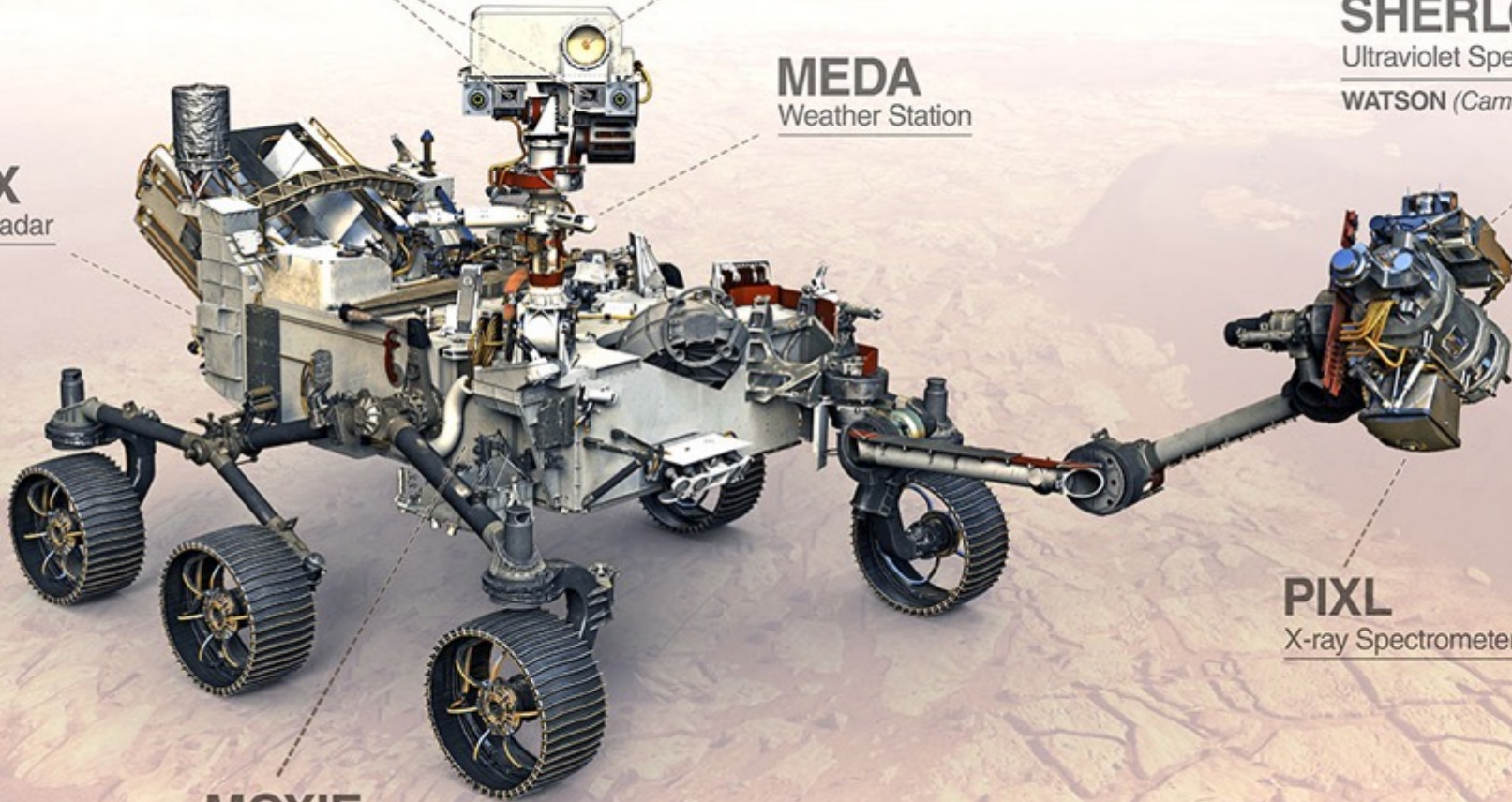
MEDA
Weather Station

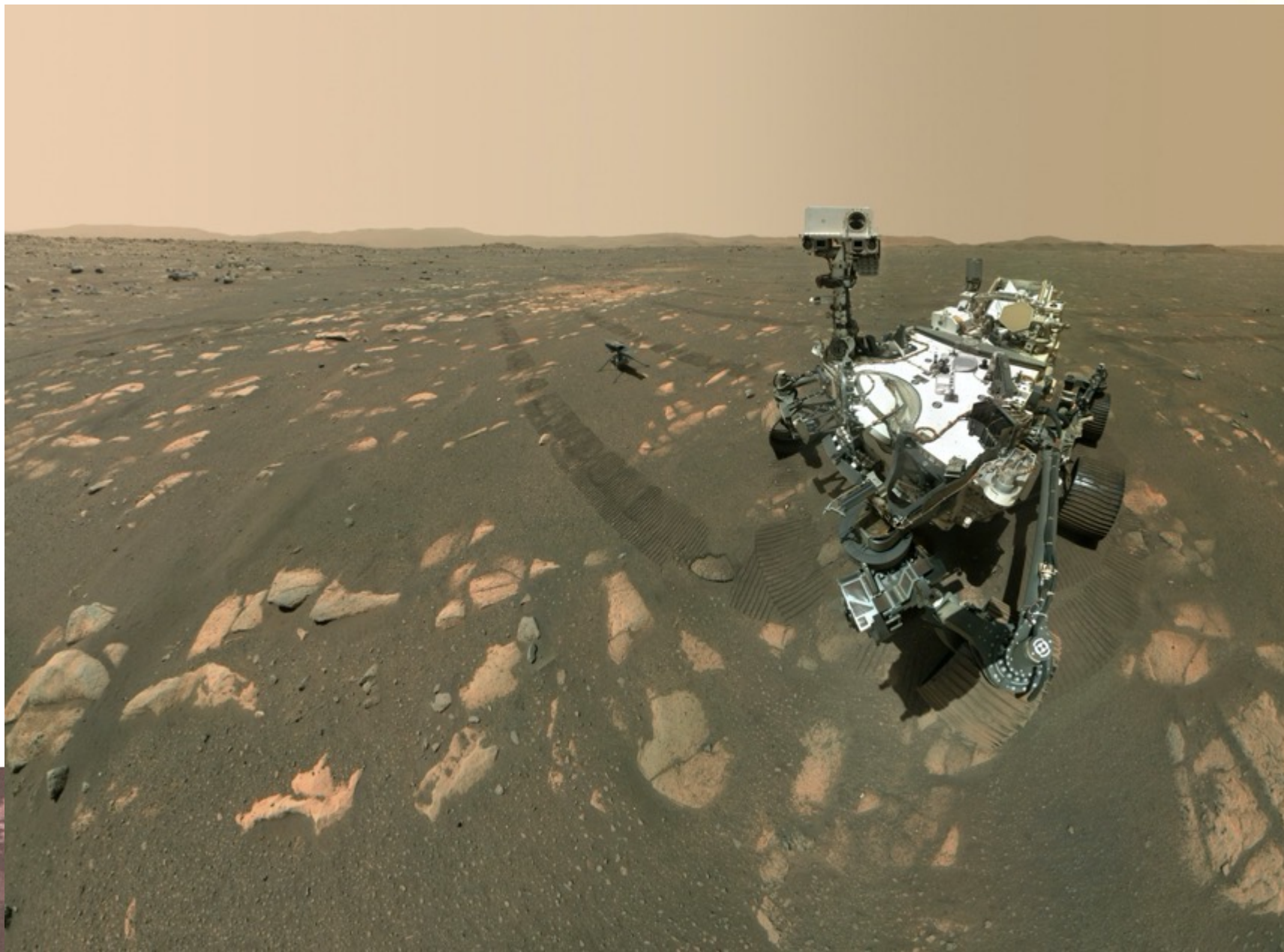
SHERLOC
Ultraviolet Spectrometer
WATSON (Camera)

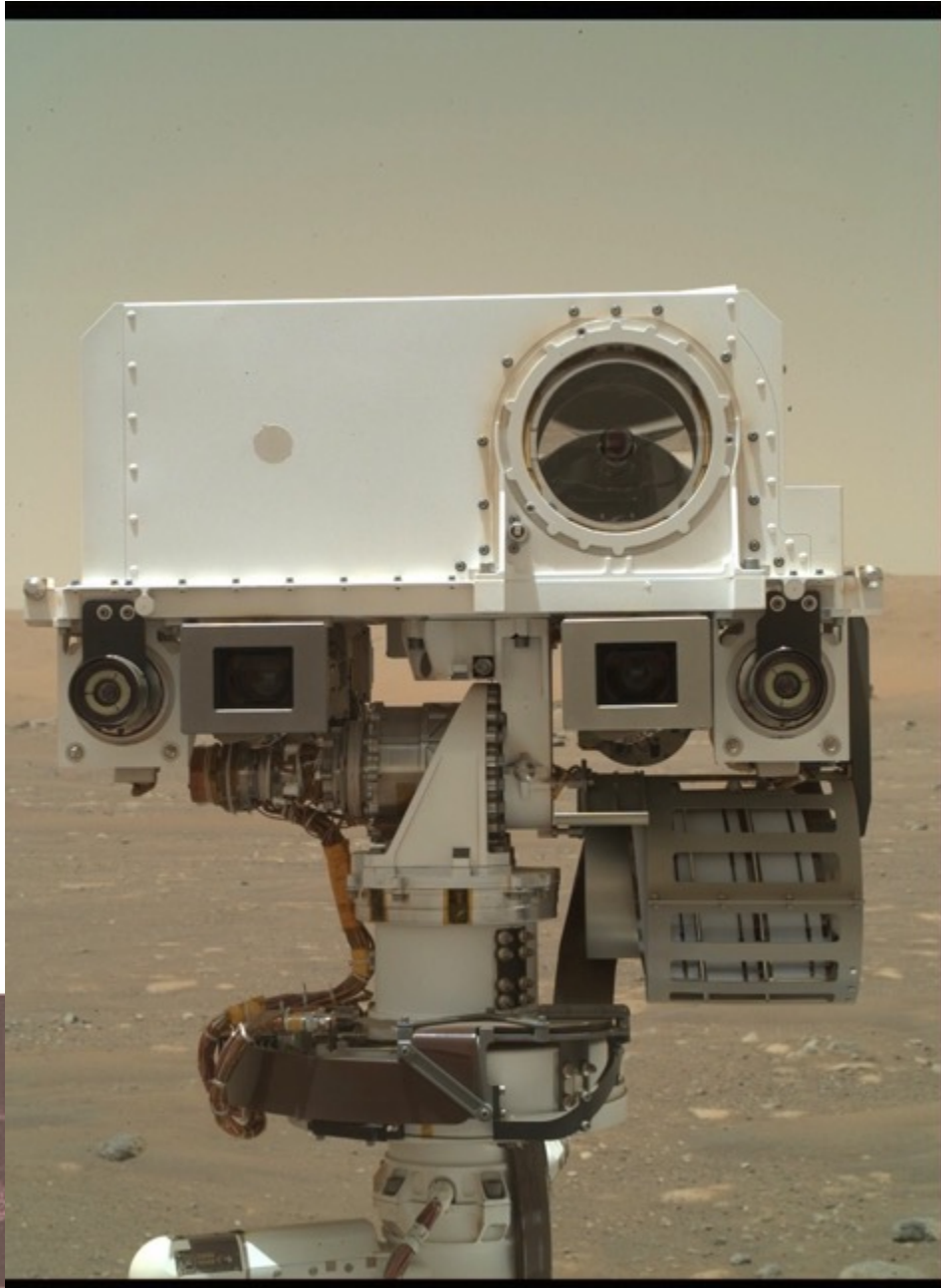
RIMFAX
Subsurface Radar

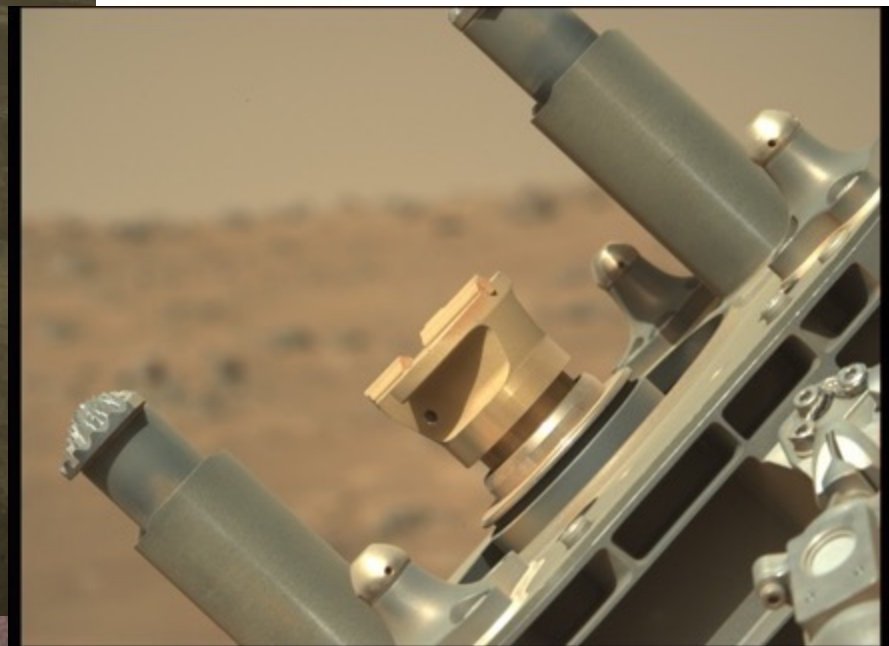
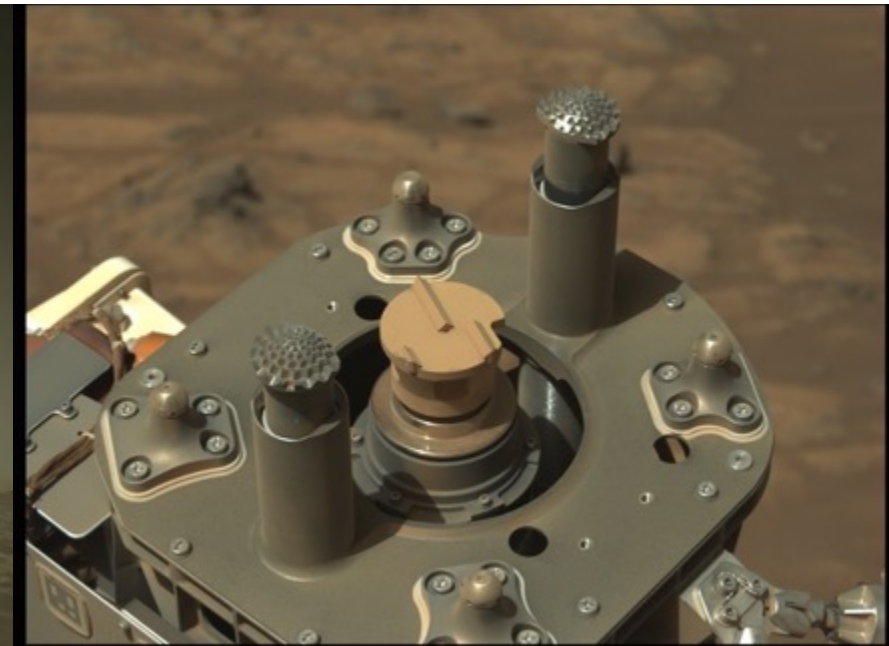
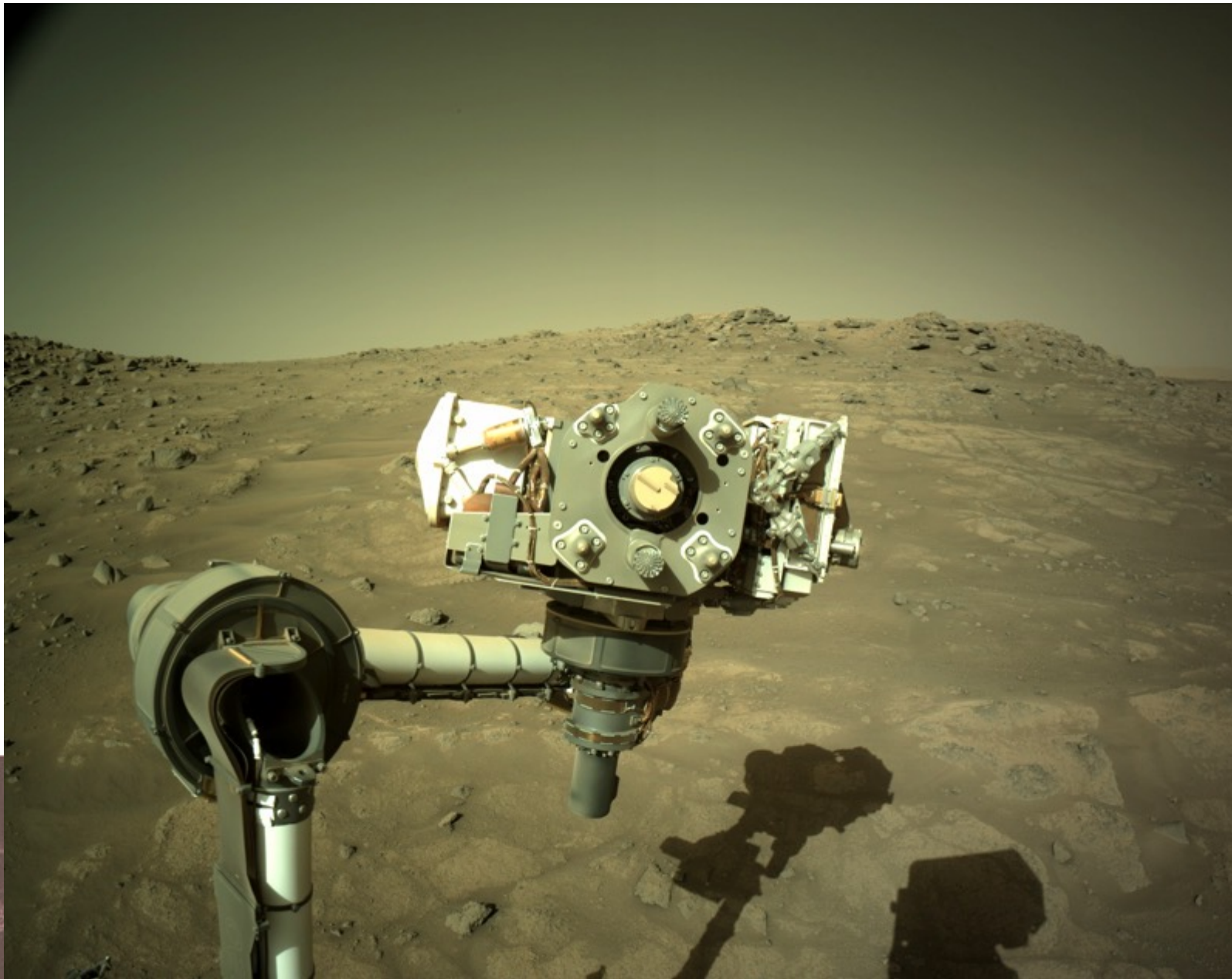
PIXL
X-ray Spectrometer

MOXIE
Produces Oxygen from Martian CO₂

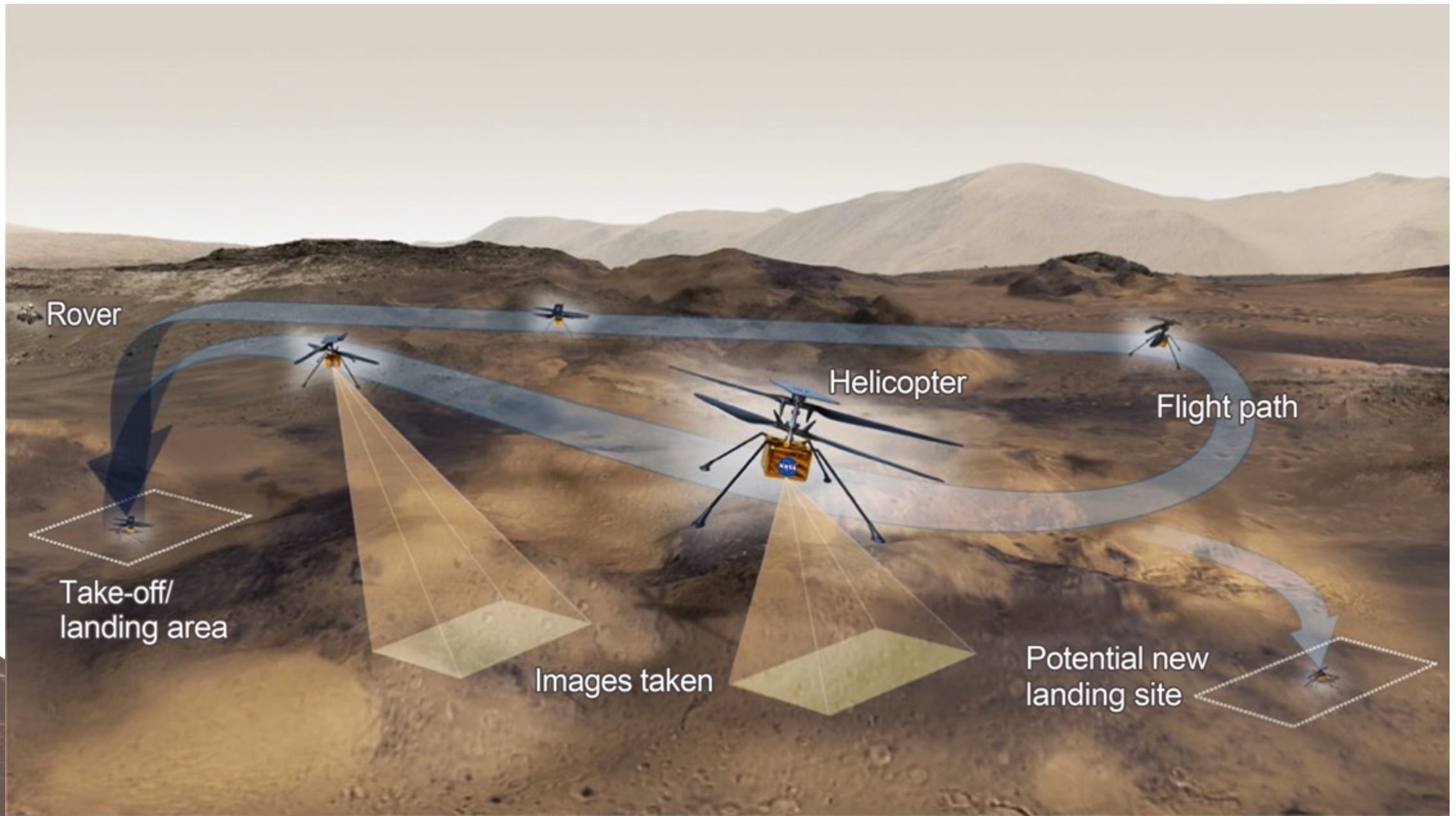














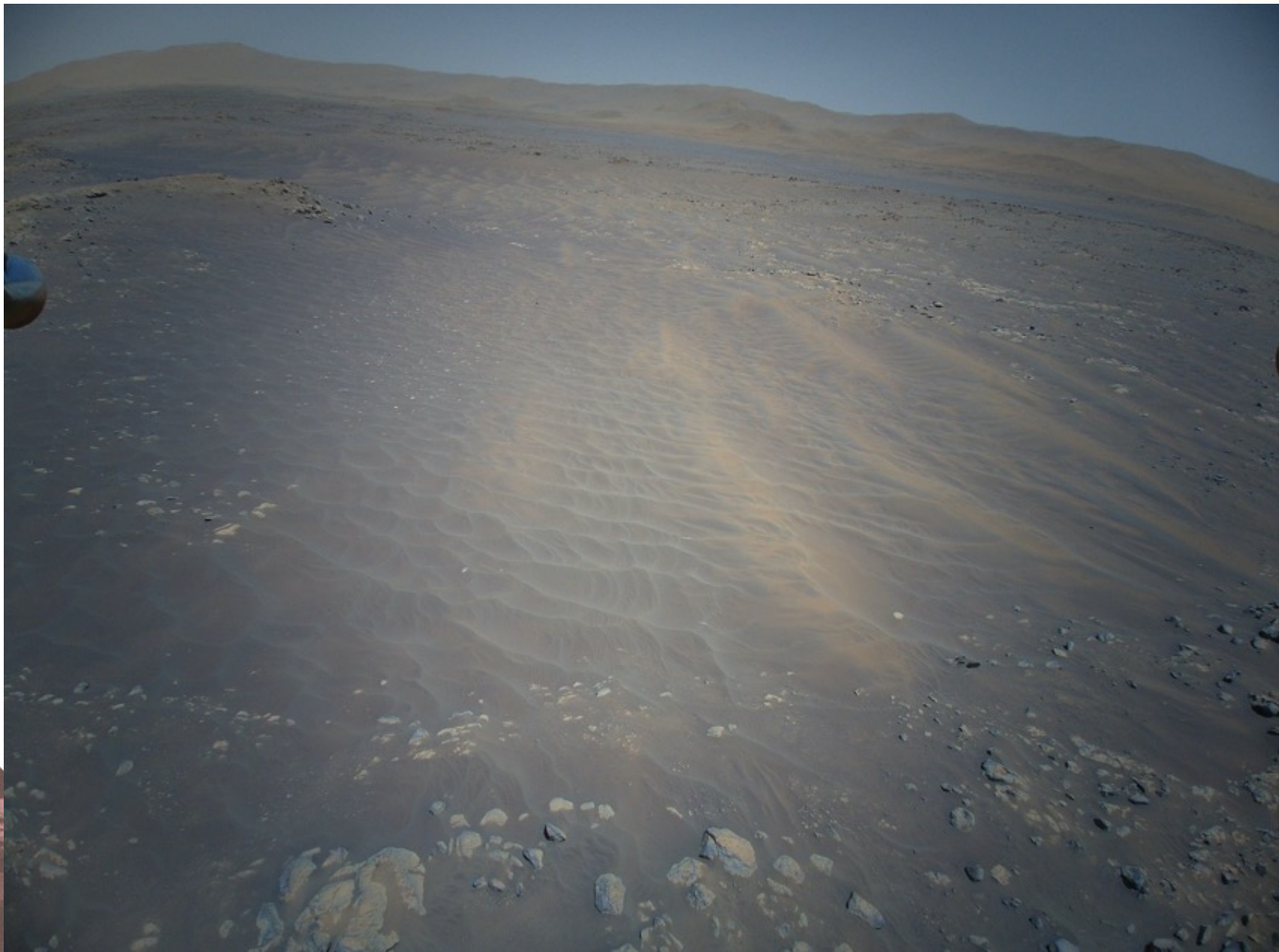






























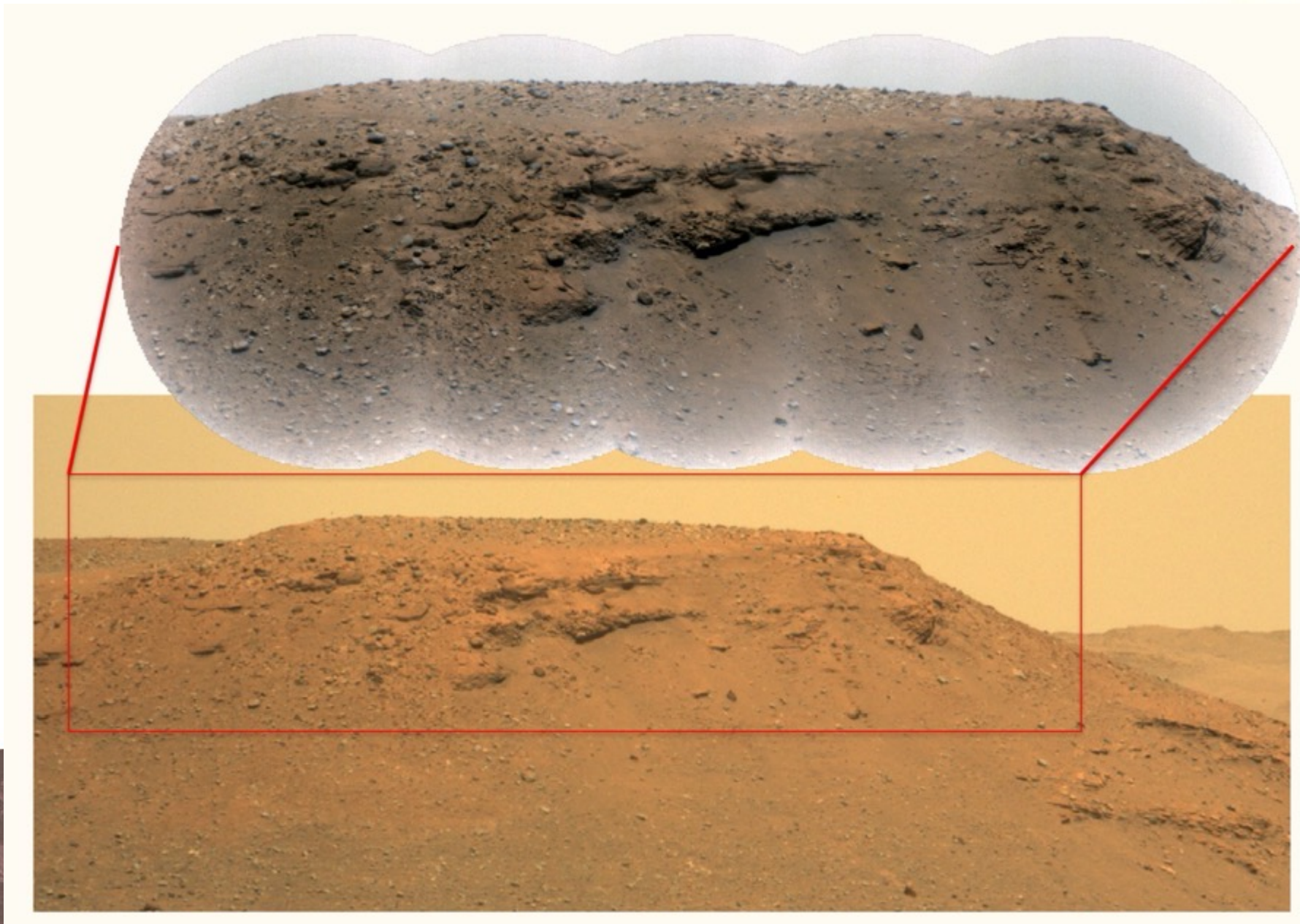












First Target: Máaz (Sol 12)

Distance = 3.17 m



SuperCam
Remote
Micro-Imager (RMI)

10 mm

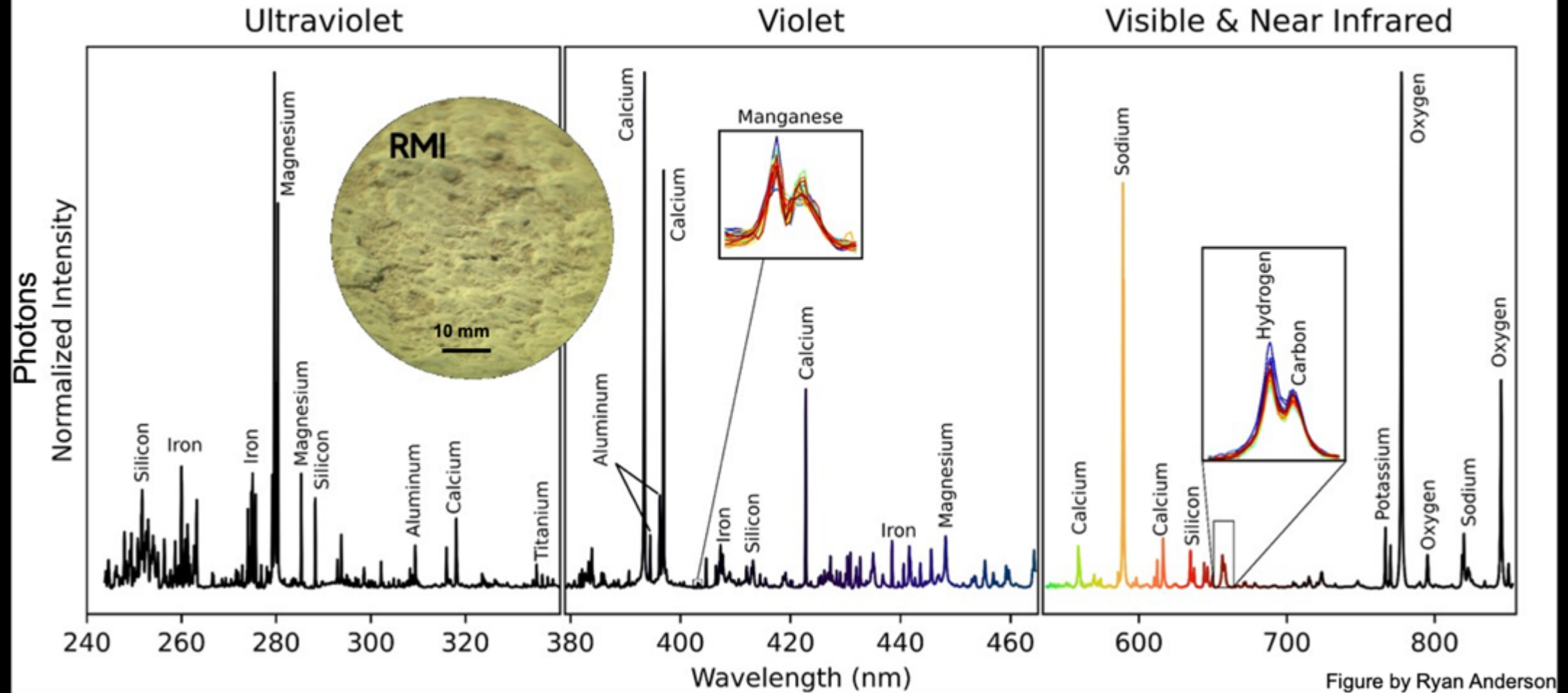
Gasnault

- Light-toned
- Grain-supported texture

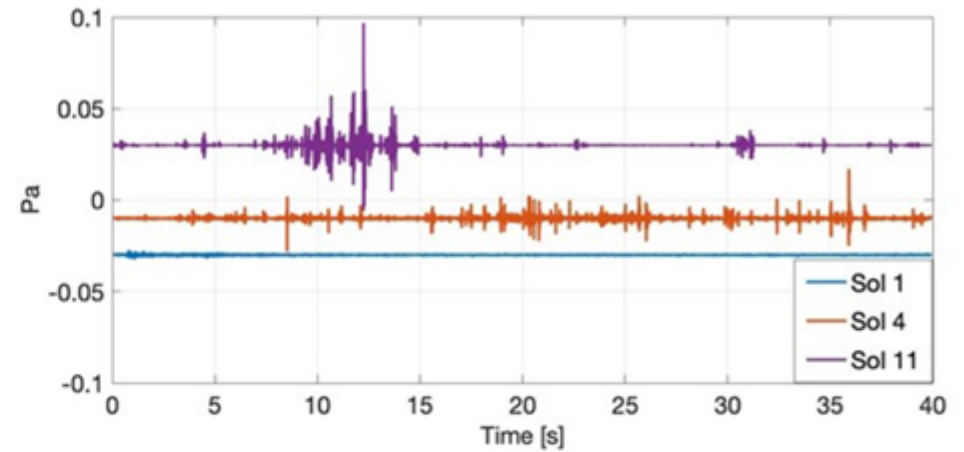
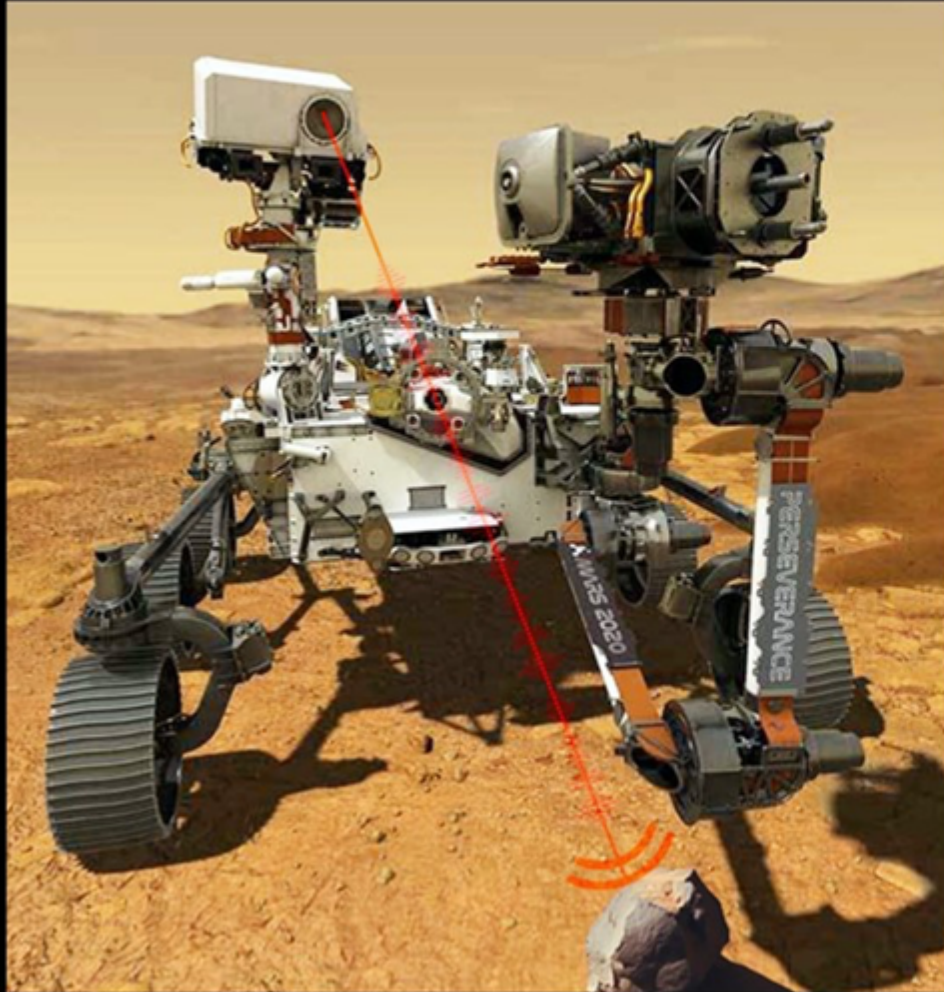
10 cm
Mastcam-Z

Maaz target (Sol 12)

1st SuperCam LIBS spectrum



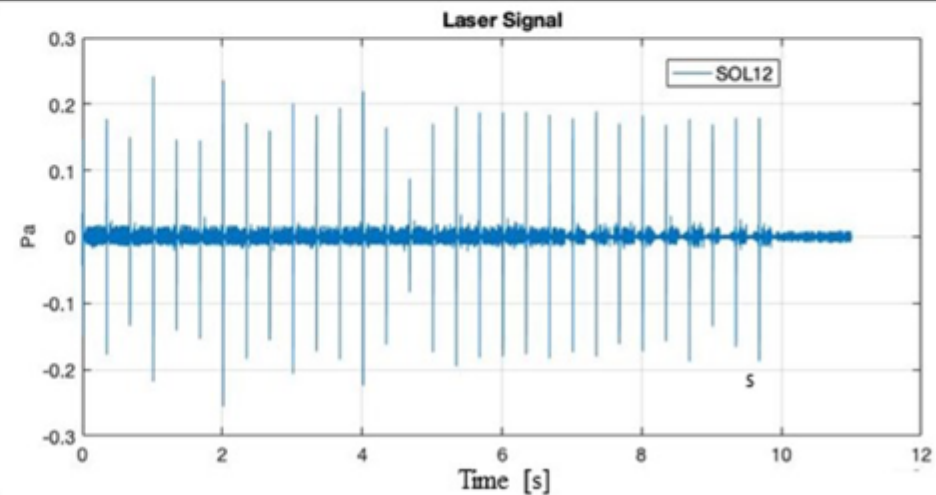
Martian acoustics

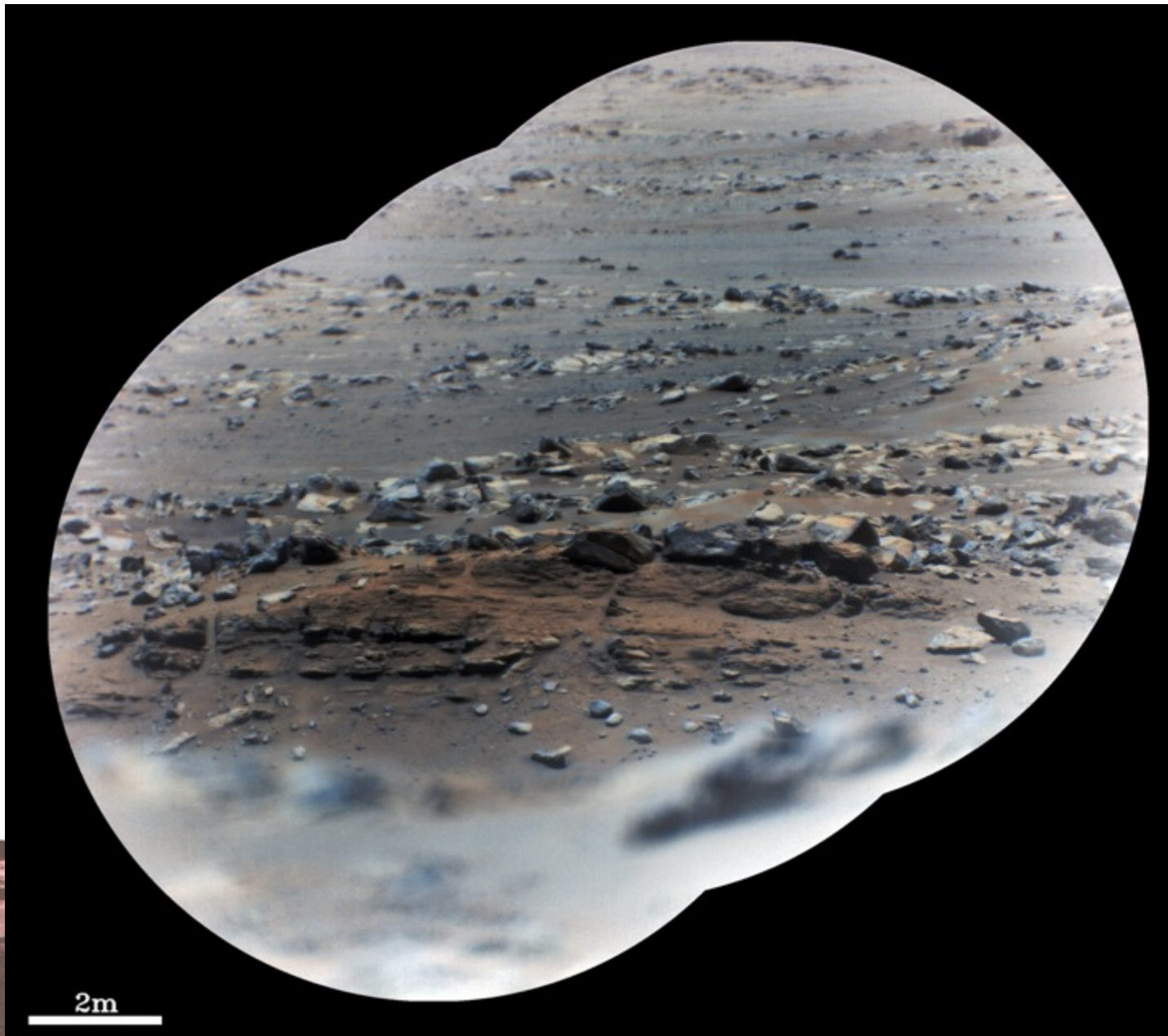


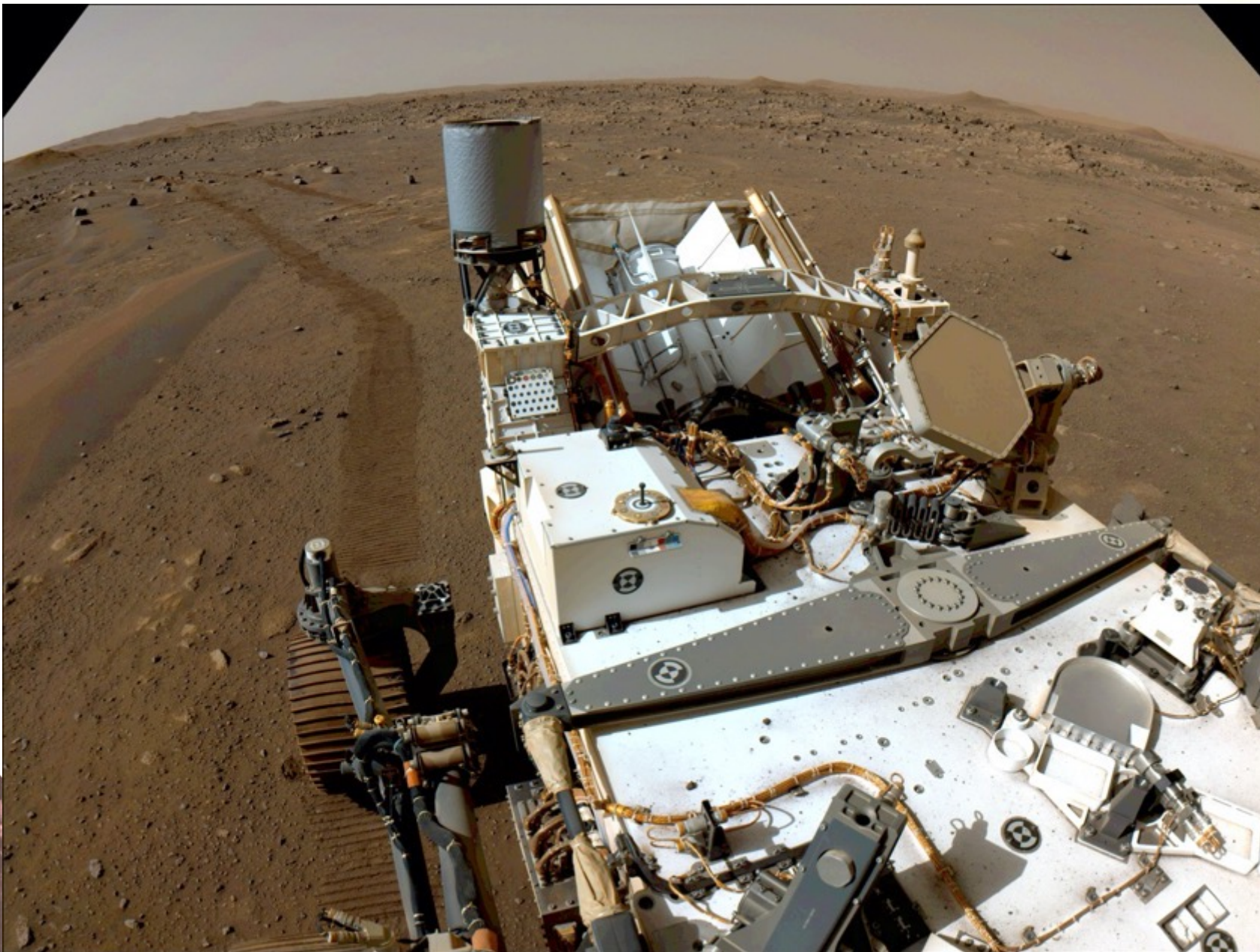
Sol 1: First recording of sounds on Mars

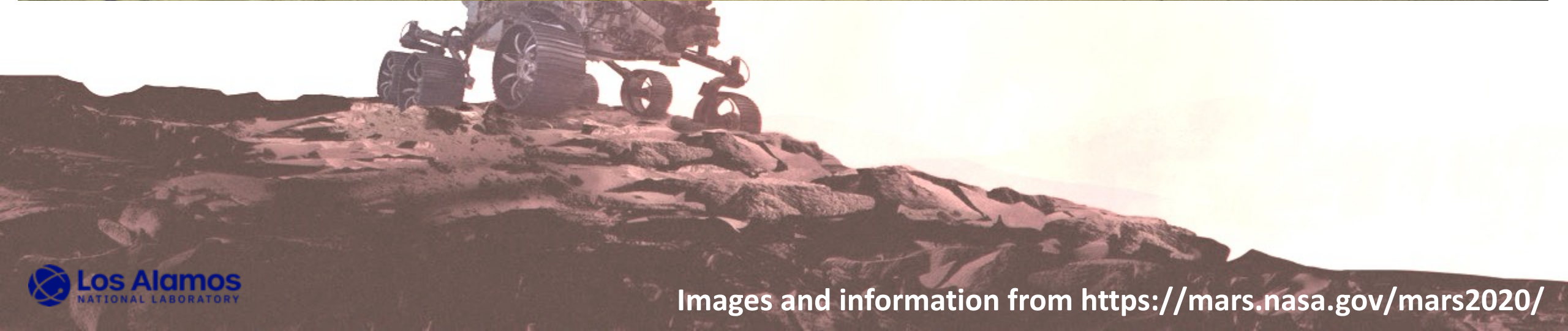
Sol 4: First acoustic recording of the wind

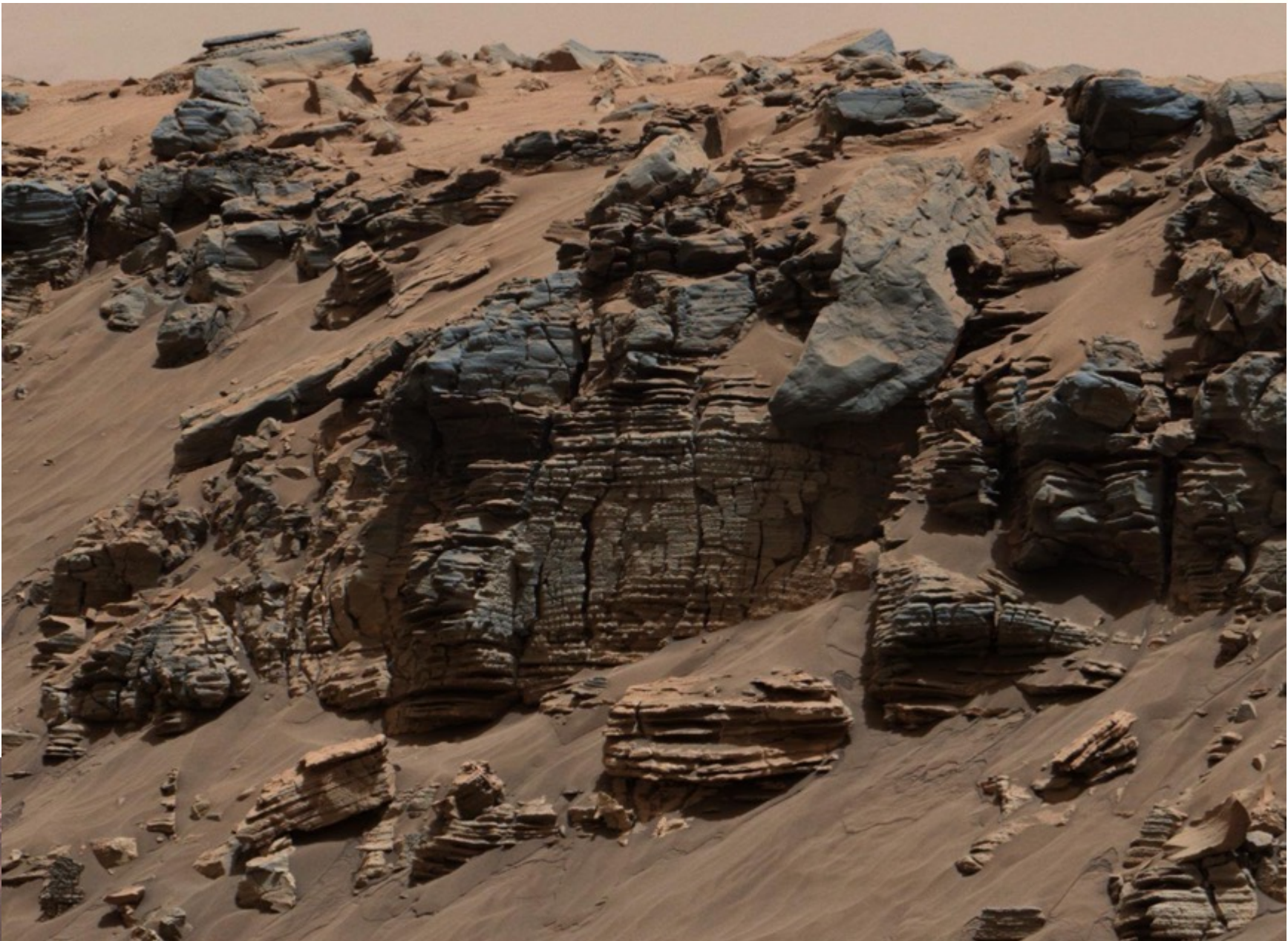
Sol 12: First recording of laser shots





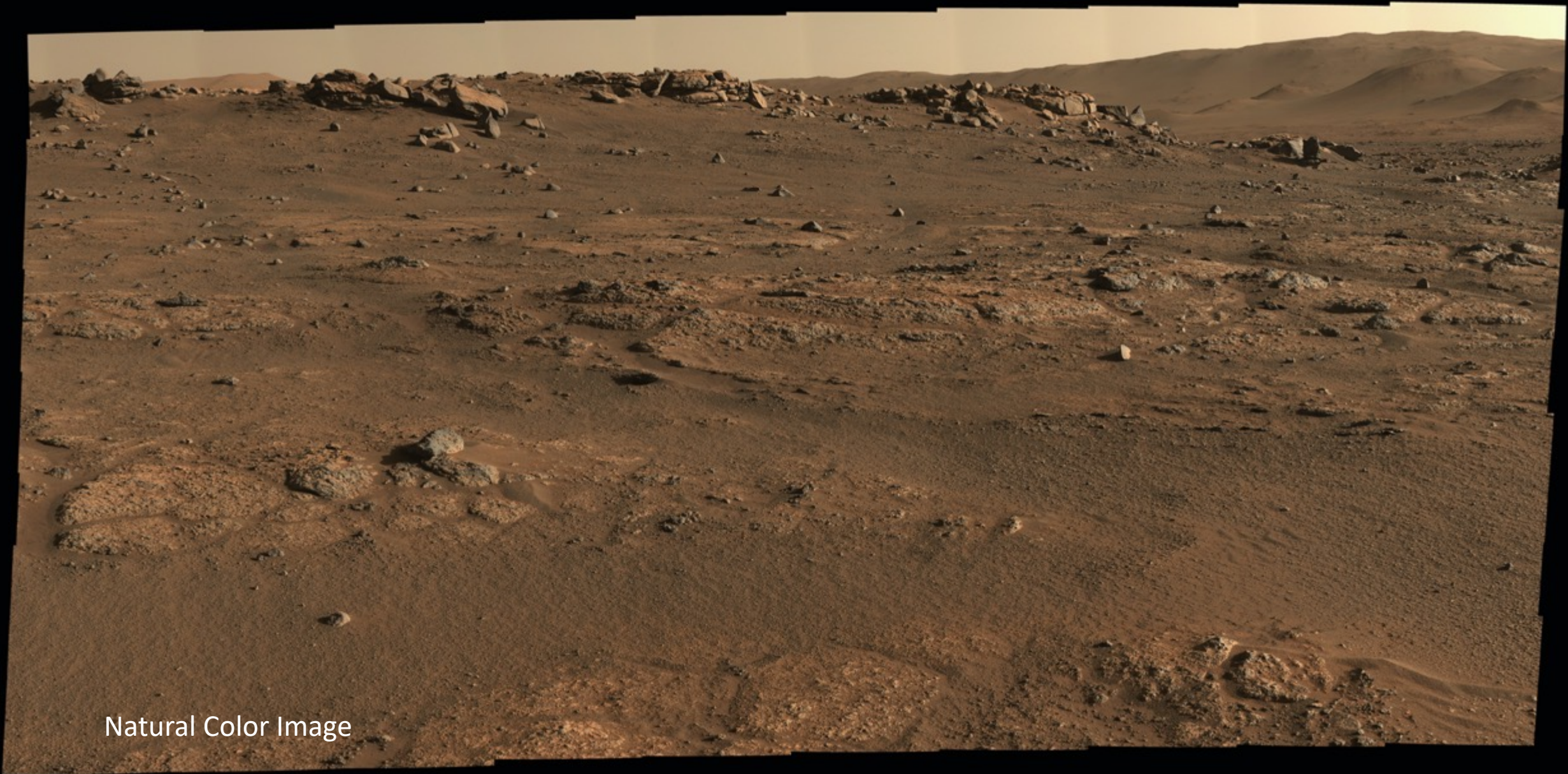




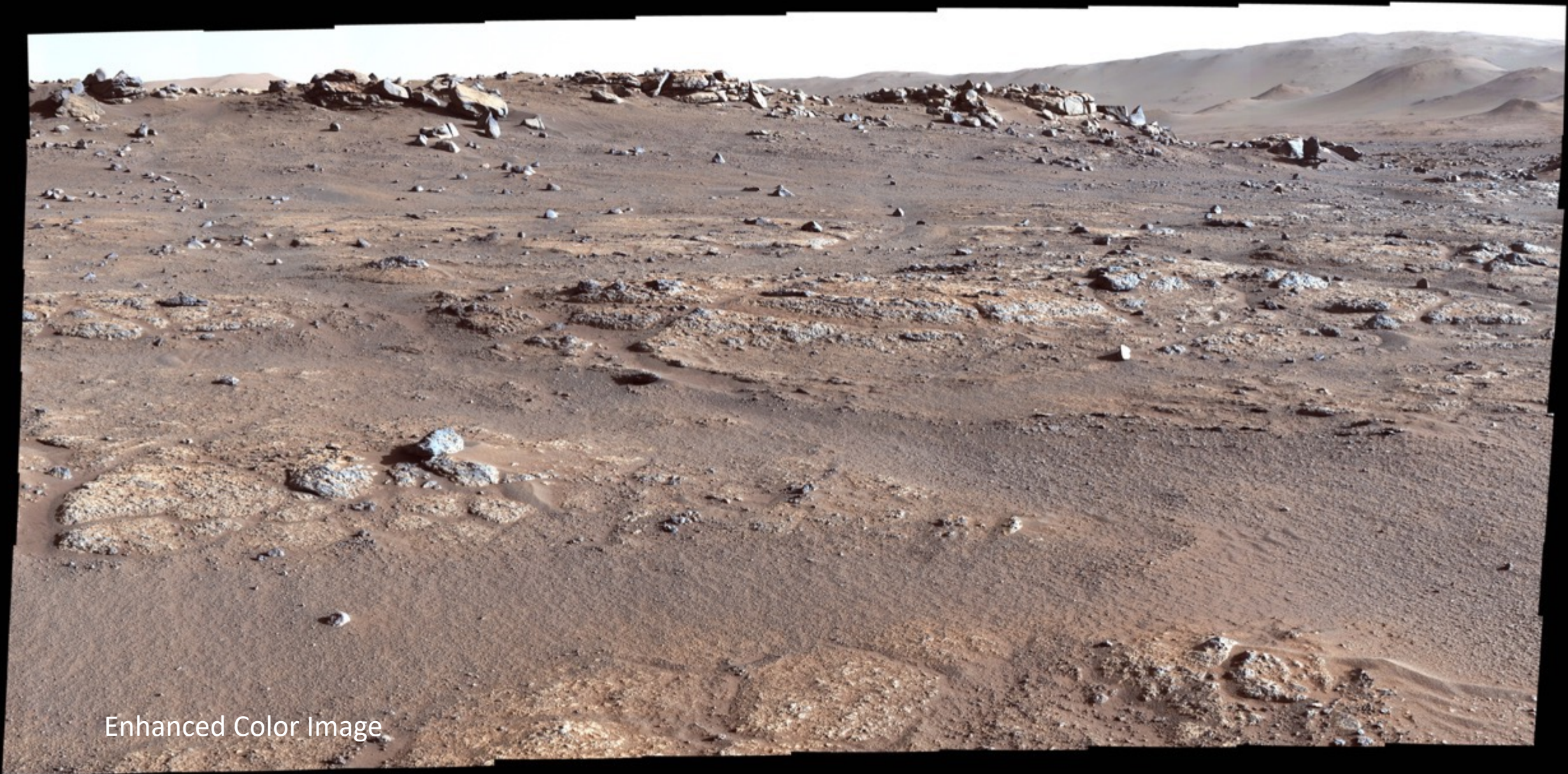








Natural Color Image



Enhanced Color Image